XVI.—Further Notes on the Birds of Macedonia. By Captain Alexander G. L. Sladen, R.E.

THE following notes have been compiled from observations made since the writing of those which appeared in 'The Ibis' of July 1917, and include a period up to 7 July, 1917, on which date I left the country.

Pastor roseus. Rose-coloured Starling. A single bird was noticed on 21 March, and several flocks which settled on trees to rest for a few minutes during flight, May 28 to June 20.

Oriolus oriolus. Golden Oriole. These birds do not appear to breed in Macedonia, but pass through during migration.

Carduelis carduelis. Goldfinch. I noticed pairs occasionally up to May 1, but the large flocks which were common in winter had all disappeared. A few birds may remain to breed, but they cannot be plentiful. This was the only representative of the Finches which I ever saw after the middle of March.

Passer domesticus. HOUSE-SPARROW.
Passer montanus. TREE-SPARROW.
Passer hispaniolensis. SPANISH SPARROW.

All these birds bred. The last-named species appeared to be very local.

Emberiza citrinella. Yellow Bunting. Was not seen after the middle of March.

Emberiza cirlus. CIRL BUNTING. Only a few pairs remained to breed. During the breeding-season this was the least common of all the Buntings.

Emberiza melanocephala. Black-headed Bunting. This handsome bird arrived in the beginning of May, the males preceding the females by a few days. The first nest I found

contained one egg on May 15. By this date there were pairs everywhere. I saw birds building up to June 6. The nest was invariably placed when possible in low scrubby brambles, six to eighteen inches from the ground, and was very little concealed. When building-sites of this kind were not available, a low thorn-bush was sometimes chosen. I came across twenty nests between May 15 and 23. I never saw the male bird take any part either in building the nest, in incubation, or in feeding the young, though it is possible he shares the last task with his mate. During the first two operations he confines himself to sitting on a bush a few yards from the nest and continually uttering his short and rather monotonous song. He is always extremely tame, allowing one to approach to within eight or ten yards or closer.

Emberiza hortulana. Ortolan Bunting. Was not found breeding, but was probably overlooked. Not seen in winter.

Emberiza cia. Meadow-Bunting. Was noticed during December and onwards in considerable numbers among the rocky hills. Bred commonly.

Emberiza miliaria. Corn-Bunting. By far the commonest of all the Buntings. In winter, they congregated in flocks, and in spring distributed themselves in pairs all over the country, breeding everywhere.

Alauda arvensis. SKY-LARK. Was not found breeding, and I did not come across any of this species after the beginning of May.

Lullulla arborea. Wood-Lark. All these birds disappeared with the advance of spring. During winter they were common in small flocks in the hilly country.

Melanocorypha calandra. Calandra Lark. Bred freely: I found eggs from March 29 to June 18. On the latter date they were unincubated.

Galerida cristata. CRESTED LARK. Found breeding, April 20 to June 24.

Calandrella brachydactyla. Short-toed Lark. Found breeding commonly, April to end of June.

Motacilla alba. WHITE WAGTAIL. This bird, which was exceedingly common during winter all over the country, seemed to disappear entirely in the spring. I, however, saw one pair on the banks of the Vardar on the 1st of May,

Motacilla melanocephala. Black-headed Wagtail. Unfortunately, I was not in suitable country during the breeding-season of this bird; but I visited the Vardar marshes close to Salonica on June 29, and found literally thousands of adult and young birds, some of the latter only just fledged, which were still being fed by parent birds. We had recently had heavy rains, and much of the ground was flooded. This had evidently compelled many broods to leave their breeding-grounds and to congregate in the drier parts.

Lanius senator. Woodchat. A single example only seen, near the Vardar River, May 18.

Cettia cetti. Cetti's Warbler. I first came across this bird when I visited the shores of Lake Ardzan about March 19; it was then common, remaining throughout the spring and breeding.

Enanthe connanthe. Common Wheatear. Fairly common; first noticed March 21, and a nest found with unincubated eggs, June 21.

Enanthe stapazina xanthomelæna. EASTERN BLACK-THROATED WHEATEAR. Nest found with five eggs, May 9.

Hirundo sp.? (A red-bellied Swallow.) Was quite common and bred freely.

Micropus apus. Swift. Noticed a number hawking for flies over Lake Ardzan on May 23 for the first time. Thereafter I seldom saw any.

Caprimulgus europæus. NIGHTJAR. Secured a specimen on May 28. I had first noticed it about a week earlier.

Merops apiaster. Bee-eater. Saw a pair on June 2, and hundreds later.

Upupa epops. Hooroe. Found breeding, May and June.

Alcedo ispida (pallida?). KINGFISHER. Found a pair with young, June 1. This species also remains throughout the winter.

Coracias garrulus. Roller. First noticed about May 3, and was very common later. Nests were reported, but I did not see any myself.

Carine noctua. LITTLE OWL. Common all over the country. One pair nested in my dug-out, between the supports of the roof and the ground-level.

Gyps fulvus. GRIFFON VULTURE. A few mixed with the Egyptian Vultures. First seen, June 1.

Neophron percnopterus. EGYPTIAN VULTURE. Single examples were noticed flying high as early as March 30; but large numbers arrived in June, many of them being apparently birds of the year.

Phalacrocorax carbo. Cormorant. Thousands frequented Lake Ardzan during the winter and early spring, and a few remained throughout. There was a smaller bird of this kind which I did not identify. It was as common as the former species, and a few also remained.

Pelecanus sp.? (A white Pelican which appeared through glasses to have a pink tinge on the breast.) Small flocks of these appeared on Lake Ardzan during April and May.

Anser anser. GREY-LAG GOOSE. In May I heard from some officers of the A.S.C. that two nests of "Grey Geese" had been found in the previous March. After further enquiry, I discovered that one of the chaplains and another officer had found one of these nests which contained four

eggs, of which they took one. Another officer had taken a nest of five eggs. I spoke to all of these officers, and was taken to the old nest, which was situated on a floating island among dense reeds on the lake. Unfortunately it had lately been occupied by a Mallard. Of the eggs originally taken, three had been sent home to England and apparently lost in transit, and the remainder had become broken and were thrown away. There was no doubt, however, that they were the eggs of a "Grey Goose," as it was the constant coming and going of these birds which had led to the discovery of their nests. I myself had seen geese swimming in the lake with goslings. During the whole of the time I was in this neighbourhood, which was up to the end of May, there were seventeen to twenty geese (in all probability Grey-lag) frequenting the lake.

Tadorna casarca. Ruddy Sheldrake. I found three or four pairs breeding on Lake Ardji Gheul near Naresch in June. Two had broods of young, and other birds evidently had nests which I failed to find at first. I eventually found one with half-incubated eggs. I had not noticed this species until the end of March, and am inclined to think it does not winter here.

Anas boschas. Wild Duck. This species bred in small numbers on Lake Ardzan.

Querquedula querquedula. Garganer. Seen in fair numbers up to the end of March, but I found none breeding.

Spatula clypeata. Shoveler. Found breeding.

Netta rufina. Red-crested Pochard. There was a flock of some forty to fifty birds on Lake Ardzan all through the spring. About April the males were in a flock by themselves, with only one or two females among them. The ducks were evidently mostly sitting at that time, for later on they appeared now and again with their broods. They were, however, very shy and always kept close to the dense reed-beds.

Nyroca ferina. Pochard. Many birds were noticed on Lake Ardzan during April, May, and beginning of June. I have no doubt some were breeding, but I found no nests.

Nyroca fuligula. Tufted Duck. Never common, and not noticed at all after the end of March.

Egretta alba. Great White Heron. I saw one bird which appeared to belong to this species on April 17. It was very shy, and I could only examine it through glasses at some distance.

Egretta garzetta. LITTLE EGRET. Single birds were observed on Lake Ardzan from the middle of April onwards.

Ardeola ibis. Buff-backed Heron. These were fairly common on Lake Ardzan, arriving about the middle of April.

Ardeola ralloides. Squacco Heron. These were fairly common on Lake Ardzan in varying numbers. They were first noticed about April 15.

Nycticorax griseus. NIGHT HERON. I secured a female on April 29. They were at no time common.

Ciconia ciconia. WHITE STORK. This bird is common all over the country, and breeds in considerable numbers in and near villages. I counted over thirty-five pairs in the evacuated village of Karasuli, near the Vardar. They arrived at the end of March.

Ciconia nigra. Black Stork. I saw a flock of eighteen of this species near Naresch about the middle of June, but at no other time.

Otis tarda. Great Bustard. I saw two birds which were apparently of this species on the plain near Hirsova at the beginning of June. They had often been reported to me as frequenting that district.

Otis tetrax. LITTLE BUSTARD. Later observations proved that these birds remained throughout the whole spring in the district. I secured specimens up to July. They no longer went about in flocks, but I frequently flushed single birds from the long grass which covers the great tracts of uncultivated land. On June 17 I secured a female with incubation spots. I have no doubt that this species breeds throughout the country, and it was only the vast amount of cover and the lack of time which prevented me from finding nests.

Œdicnemus œdicnemus. STONE-CURLEW. First noticed May 14. I found two eggs May 16, and thereafter I found this bird all over the country in pairs—also several nests.

Glareola pratincola. Collared Pratincole. On June 8 I visited Lake Ardji Gheul, and found these birds just beginning to breed. At this time the sun was so hot that the parent birds were obliged to cover their first egg to protect it, and as intervals of two days often separated the laying of a second, and another one or possibly two days elapsed before the third made its appearance, there was a good deal of discrepancy in the incubation of the clutch. Eggs were laid in a slight depression scratched out of the dried mud which fringed that part of the lake. These nests were lined in most cases with small whitish pebbles or bits of dried mud about the size of peas. The eggs harmonised so well with their surroundings that even after having watched a bird leave the nest, I had some difficulty in finding it. Parent birds feigned lameness and injuries by stretching themselves on the ground with wings extended, or by trailing a leg behind them and hopping on the other supported by one wing. The heat of the sun compelled birds to cover their eggs almost as soon as they had left them, and in a short time there were several within twenty-five vards of me. The full complement was three, but there were several nests which never had more than two. I had many opportunities during the month which followed of observing the habits of this species.

Tringa alpina. Dunlin. A few remained all the Tringa minuta. Little Stint. spring until July.

Totanus totanus. Redshank. Several pairs were seen during June on Lake Ardji Gheul, and from their behaviour appeared to have young, but I was unable to find any.

Numerius phæopus. Whimbrel. Shot one out of a flock on Lake Ardzan, March 22.

Himantopus himantopus. Black-winged Stilt. Of all the Waders this was the commonest during the month of June. On June 21 there was a violent thunderstorm, accompanied by a strong south-westerly gale. The following day I visited Lake Ardji Gheul and found the whole of the northern shore and the northern edges of several small pools strewn with scores of the eggs of this species. Many had built their nests, which were small mud mounds, on half-submerged mud islands which the heavy rain had again submerged so that the eggs were swept away. There were a few Avocets' eggs among them. A more fortunate site had been selected by another colony, and the nests had been placed in tufts of reedy grass standing well above but surrounded by shallow water on the sheltered eastern edge of the lake.

Recurvirostra avocetta. Avocet. Found nesting fairly commonly on Lake Ardji Gheul; it doubtless bred in other similar localities.

Ægialitis hiaticola. RINGED PLOVER. I noticed these birds just at the end of May, but I was credibly informed that they were common on Lake Ardzan during the winter and early spring. I found a nest containing one egg on Lake Ardji Gheul, June 8.

Ægialitis alexandrina. Kentish Plover. Found breeding in some numbers, June 8, on the shore of Lake Ardji Gheul.

Vanellus vanellus. LAPWING. Almost all migrated in the spring, but two pairs remained and bred at Lake Ardji Gheul.

Sterna anglica. Gull-billed Tern. I first noticed three pairs on Lake Ardji Gheul, June 18. They were very noisy, and appeared to resent my intrusion. I did not see any more of these birds, although I visited the same spot frequently during the month. I did not find any of the five species of Terns breeding, but as I was unable to visit much of the most suitable ground after the end of May, my observations on this point are of little value. I should be very much surprised if Hydrochelidon nigra does not breed in considerable numbers in the neighbourhood of Lake Ardzan.

Porzana porzana. Spotted Crake. One was secured about April 19—a female, with half-formed eggs.

Birds not positively identified.

Cygnus sp. A pair of white Swans flew over Lake Ardzan low down (about 80 feet), March 21.

Numenius arquatus. Curlew. I shot one out of a flock which exactly resembled this species, but the bill was so excessively long $(10\frac{1}{2})$ inches from base to tip) that I was not sure of its identity.

Circus æruginosus. Marsh Harrier. General colour (winter) chocolate, lighter (almost yellow) on the top of the head, under the chin, and on the shoulders. Very common in marshy ground. Found a nest with three eggs (white) in long reedy grass in swamp at Lake Ardji Gheul, June 22. Nest was built of sticks and reed-stalks, about 2 ft. 6 ins. in diameter, on the ground. The bird is common, summer and winter. Size slightly smaller than the Common Buzzard.

Circus sp. A Hawk with white rump, which is very conspicuous when flying, was seen on several occasions. I did not secure a specimen.